

Title (en)

AQUEOUS LUBRICANT FOR PLASTIC WORKING OF METALLIC MATERIAL AND METHOD FOR FORMING LUBRICANT FILM

Title (de)

WÄSSRIGER SCHMIERSTOFF ZUR PLASTISCHEN VERARBEITUNG METALLISCHER WERKSTOFFE UND VERFAHREN ZUR BILDUNG EINES SCHMIERFILMS

Title (fr)

LUBRIFIANT AQUEUX POUR LE TRAVAIL PLASTIQUE D'UN MATERIAU METALLIQUE ET PROCEDE D'ELABORATION D'UN FILM LUBRIFIANT

Publication

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Application

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Priority

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Abstract (en)

[origin: EP1319703A1] An aqueous lubricant for use in plastic working of a metallic material which comprises (A) a water soluble inorganic salt and (B) a wax, wherein the components are dissolved or dispersed in water, and wherein a solid concentration ratio (weight ratio) (B)/(A) is 0.3 SIMILAR 1.5. and a method for producing a lubricative film, characterized in that a lubricative film is produced by applying the aqueous lubricant, preferably in a dried weight of 0.5 SIMILAR 40g/m<2>, on the surface of a metallic material, providing no chemical conversion layer thereon, followed by drying. The aqueous lubricant preferably further comprises (C) a metal salt of a fatty acid in a solid concentration ratio (C)/(A) of 0.01 SIMILAR 0.4. The water soluble inorganic salt (A) is preferably selected from among a sulfate, a silicate, a borate, a molybdate and a tungstate. The wax is preferably a synthetic wax which is dispersed in water and has a melting point of 70 SIMILAR 150 DEG C. The metal salt of a fatty acid (C) is preferably obtained through reacting a saturated fatty acid having 12 SIMILAR 26 carbon atoms with a metal selected from among zinc, calcium, barium, aluminium, magnesium and lithium. The aqueous lubricant can be used for imparting excellent lubricity with ease to the surface of metal having no chemical conversion layer formed thereon. <IMAGE>

IPC 8 full level

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